

**ENVIRONMENTAL IMPACT REVIEW**  
**VIRGINIA STATE LAW ENFORCEMENT TRAINING**  
**FACILITY**  
**OLD RIVER TRAIL**  
**POWHATAN COUNTY, VIRGINIA**

**PC 156 17805 000**

**Prepared For:**

**TRS Range Services LLC**  
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**Prepared By:**

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**MACTEC Project No. 3111-09-0552**

**January 27, 2010**



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January 27, 2010

Ms. Noreen Powers  
TRS Range Services LLC.  
1739 Maybank Highway  
Charleston, South Carolina 29415

**Subject: Environmental Impact Review  
Virginia State Law Enforcement Training Facility  
Powhatan County, Virginia  
MACTEC Project No. 3111-09-0552**

Dear Ms. Powers:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to submit this Report of Environmental Impact Review for the above-referenced Site. This report was prepared to the extent practical in accordance with the *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality, November 14, 2008).

This report presents project information, including assessment procedures and limitations, along with our findings, conclusions and recommendations. The EIR process requires agency reviews and comments; this report may require updating to address comments that may arise during the review process.

We appreciate your selection of MACTEC for this work. Please do not hesitate to call if you have any questions or if we may be of further service.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, INC.**

A handwritten signature in cursive script that reads "Kathleen D. Regan".

Kathleen Regan  
Project Manager

A handwritten signature in cursive script that reads "Sarah M. Donaldson".

Sarah M. Donaldson  
Project Coordinator

Enclosure

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## EXECUTIVE SUMMARY

MACTEC Engineering and Consulting, Inc. (MACTEC) conducted an Environmental Impact Review (EIR) of the proposed Virginia State Law Enforcement Training Facility to be located on Old River Trail in Powhatan County, Virginia (Site). The EIR was conducted in material compliance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality, November 14, 2008).

A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between two state agencies, the Virginia State Police and the Virginia Department of Corrections. The Virginia State Police is the lead and sponsoring agency for the project.

## **1.0 PROJECT BACKGROUND**

A Virginia State Law Enforcement Training Facility (VSLETf) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETf is a joint effort between two state agencies, the Virginia State Police and the Virginia Department of Corrections. The Virginia State Police is the lead and sponsoring agency for the project.

### **1.1 CONTACT INFORMATION**

The Sponsoring Agency is the Virginia State Police. The contact person for the Virginia State Police is:

Ronald Rice  
Virginia State Police (VSP)  
7700 Midlothian Turnpike,  
Richmond, Virginia 23235  
(804) 674-2118  
[Ronald.Rice@vsp.virginia.gov](mailto:Ronald.Rice@vsp.virginia.gov)

### **1.2 PURPOSE**

The purpose of the proposed project is to establish a shooting range that will improve the knowledge, skills, and abilities of the partnering law enforcement agencies: the Virginia State Police (VSP), and the Virginia Department of Corrections. This facility would provide for personnel training needs and provide for shared expenses for the requirements of developing, operating and maintaining a training center.

### **1.3 NEED**

The Virginia State Police (VSP) and the Virginia Department of Corrections currently need a long term training facility. These agencies all currently use facilities owned by others, mainly the Department of Corrections (DOC) and which are not always available when needed. The facility will meet the needs of the required by criminal justice training and certification standards. With today's challenges and threats it is imperative that these agencies obtain an adequate facility that will allow them to train as needed.

Some of the available training facilities used today are rapidly deteriorating, the Target systems are not functional, and the facilities do not provide for indoor and close quarter training. These needs will be

solved with this project and the partner agencies will be provided the necessary quality facilities to meet their training needs and service to the public.

## **2.0 PROJECT DESCRIPTION**

The following section provides general information regarding the project location and information regarding the proposed facility.

### **2.1 LOCATION**

The project site is located on land owned and operated by the Virginia Department of Corrections and know as the Deep Meadow Correctional Center. The site is located on the Perkinsville United States Topographical Survey Map (Figure 1) at latitude 37.62827°N and longitude 77.87122° W, and an approximate elevation of 290 to 300 feet above mean sea level (MSL). The proposed VSLETF site is contained within a large parcel that includes several Virginia Department of Corrections facilities, including the adjacent Deep Meadows Correctional Center and work farm. The Site is generally flat and the surrounding area is described as gently rolling terrain currently used as crop land with no distinguishing features. The Site is approximately 35 acres in total area.

#### **2.1.1 Historical Property Use**

The Deep Meadow Correctional Center serves as a reception and classification center for medium custody inmates being received into the Department of Corrections from rural and metropolitan jails. Initially opened in 1976, the facility consisted of mobile units obtained from the Federal Government and was subsequently closed in 1984. Funding was initiated in 1988 to provide renovations and construction of housing units. In 1989, the first inmates were received (<http://www.powhatanva.com/correctional.htm>).

No information is available regarding history of the property prior to 1976.

#### **2.1.2 Surrounding Area**

The VSLETF site is located within land owned and operated by the Virginia Department of Corrections and in particular, within the existing work farm. The Deep Meadow Correctional Center was established in an area of Western Powhatan County that is currently used for farming activities and the surrounding land uses are predominantly rural in character. While the eastern portion of Powhatan County is experiencing an increase in residential and commercial development, the portion of Powhatan County where the project area is located can still be characterized as rural and low density residential in deference to its location 25 miles west of the City of Richmond.

## **2.2 FACILITY INFORMATION**

The VSLETF project involves the construction of four (4) firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed development also includes a few building structures to be used as shoot houses, restrooms, classrooms, and dormitories and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres. A permanent stormwater management system will be installed to convey runoff utilizing storm drain inlets, outlet pipes, culverts, grassed swales, level spreaders, and a bio-retention pond.

The VSLETF project will be developed in Phases. Only Phase 1 has been funded for construction, but the utility and site civil design has incorporated the state's plans for three additional phases:

- Phase 2: Classroom Building (4,800 square feet)
- Phase 3: Live Fire Shoot House Building (2,500 square feet)
- Phase 4: Bunkhouse Building (7,200 square feet)

A copy of the facility Master Plan is included as an attachment to this plan. The EIR will address wherever possible the impact of the total project (all phases), but certain details of construction have not been finalized. The future location of the small buildings to be provided under Phases 2 to 4 are shown on the Phase 1 design drawings and but will be not be undertaken until funding is obtained.

### **2.2.1 Proposed Operation**

The completed VSLETF project will consist of four outdoor firing ranges (81 total shooting lanes), a live fire shoot house, a classroom and bunkhouse (to permit multi-day training sessions). Maximum occupancy of the facility is anticipated to be 200 people, with provisions made for overnight accommodations of no more than 60 people.

### **2.2.2 Buildings**

As shown on the facility Master Plan, several structures are proposed for the Site. The only structures included in Phase 1 are two prefabricated restroom buildings (475 square feet) and one prefabricated range tower for Range B (121 square feet). The three major structures are proposed for construction in subsequent phases.

### **2.2.3 Project Utilities**

Site electricity will be provided by Dominion Virginia Power. Water will be provided by a potable well designed and installed by the Virginia State Police. Sewage will be provided by two septic system and leach fields. The primary field is 11,000 square feet in area and is slated for completion under Phase 1. A secondary leach field of 15,000 square feet in area is available to support subsequent phases. Together, these systems will be adequate to support overnight accommodations for 60 people in the bunkhouse (toilets and showers, no cooking).

### **2.2.4 Traffic Patterns**

No traffic study has been undertaken as a part of this effort.

### **2.2.5 Chemical Storage**

No chemicals will be stored onsite. No ammunition or firearms will be stored permanently at the site. These items will be brought onsite by the training officers, and will remain with them at the site for their duration of stay. No pesticide or herbicide use is planned.

### **2.2.6 Environmental Management**

**Stormwater:** Advanced stormwater quality will be provided using sedimentation filter units, due to the nature of the firing ranges and the potential for lead contamination. The sedimentation filter units will discharge to a gently sloping vegetated swale and into a level spreader. The level spreader will discharge into an undisturbed area with existing vegetation maintained.

**Solid and Hazardous Waste:** Lead waste present at active firing ranges is exempt from regulation under the Resource Control and Recovery Act (RCRA), and will be managed under the Best Management Practices for the range.

## **2.3 AGENCY COORDINATION**

Early scoping and notification letters were submitted to various regulatory agencies and potentially interested parties in September 2009 providing background information regarding the project and requesting a response regarding potential concerns within the project area. A summary of the agencies

contacted and general description of the responses received is included as Table 1. Copies of the early notification letters and agency responses are included in Appendix A.

### **3.0 ALTERNATIVES ANALYSIS**

This section will address alternatives to the proposed project, which may address alternative sites, alternative designs on the proposed site, alternative methods of operation and the no-action alternatives. All of the build alternatives center on the desire to build a modern state of the art training facility.

#### **3.1 ALTERNATIVE A (NOT RECOMMENDED) – RENOVATION OF EXISTING BORROWED RANGES**

Alternative A (Not recommended) involves renovations of the existing borrowed training facilities. This alternative would minimize the associated cost in building a new facility. However, due to the existing challenges and the agencies increasing training needs, this alternative is not recommended.

#### **3.2 ALTERNATIVE B (NOT RECOMMENDED) – REDUCTION OF THE SIZE OF THE PROPOSED RANGE**

Alternative B (Not Recommended) would entail the development of a training facility smaller than the proposed facility. This alternative would consist of constructing a smaller parking area, shorter ranges or a lower number of ranges. This alternative would not provide the required training facilities to accommodate all the partner agencies and staff for their annual training needs.

#### **3.3 ALTERNATIVE C (PROPOSED ACTION) – CONSTRUCT PROPOSED RANGE**

Alternative C (Proposed Action) would entail an engineering and construction approach that would meet the partner agencies identified training needs. This alternative is broken into four development phases. Phase I - The complete construction of (1)300 yard rifle range and (3) 50 yard pistol range with watch towers for each range; development of a ground water well and septic facilities; providing for electrical power to the site; and a 100 vehicle parking area. Phase II – The planned construction of a 3 classroom facility. Phase III - The construction of a live shoot house. Phase IV The construction of sleeping quarters that will accommodate 60 officers. The agencies will proceed to Phases II – IV based on available funding.

#### **3.4 ALTERNATIVE D (NOT RECOMMENDED) – NO ACTION**

Alternative D would consist of the existing status which does not address the current training needs.

## 4.0 AFFECTED ENVIRONMENT

The following section describes the Site and surrounding area in relation to land use, topography, sensitive features and other area features used to evaluate the potential impacts of the proposed project.

### 4.1 LAND USE AND ZONING

The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Other law enforcement training facilities are located on the large parcel, including the adjacent Deep Meadows Correctional Center Canine Training Facility. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land. No buildings are currently located onsite.

According to information available on the University of Virginia Library's website, ([http://fisher.lib.virginia.edu/cgi-local/nleddb/get\\_nleddata.cgi?FIPS=51145](http://fisher.lib.virginia.edu/cgi-local/nleddb/get_nleddata.cgi?FIPS=51145)) 47.2% of Powhatan County is presently occupied by deciduous forests. Approximately 17.3% of the county is occupied by mixed forest and 16.0% is used as pastureland. Only 0.7% of the county is used for low intensity residential development.

Review of the *Powhatan County Virginia Comprehensive Plan* (January 12, 1998), according to a citizens survey, "*Priorities for future investments in public services centered clearly on Public Schools, Fire and Rescue Services, and Law Enforcement, with each receiving a top ranking from about 75% of respondents.*" According to the comprehensive plan, the major land use constraints in the county are natural constraints related to a lack of public utilities (sewer and water) compounded with poor soils for septic fields (poor percolation, especially in the eastern part of the county) and a finite supply of potable groundwater.

The Powhatan County zoning map shows the property as "Public Land."

### 4.2 COMMUNITY FACILITIES

According to the 1998 comprehensive plan, there were a total of 50 public recreation acres, 28 private recreation acres, one public and one private golf course (each approximately 200 acres), and a State owned wildlife area totaling approximately 4,900 acres (Powhatan Wildlife Management Area, the

Virginia Department of Game and Inland Fisheries). In addition, the Powhatan State Park, a 1,564 acre park located along the James River, is located generally north of the Site. The park was created by the General Assembly in 2003 via a land transfer from the Beaumont Juvenile Correction Center to the Department of Conservation and Recreation. No churches, schools or cemeteries are located in the immediate vicinity of the Site.

#### **4.3 PARK LANDS AND PUBLIC LANDS SECTION 4(F)/6(F) PROPERTIES**

Section 4(f) is part of the Department of Transportation (DOT) Act of 1966 and was designed to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. To be Section 4(f)-eligible, a property must be publicly owned, except for historic sites, which could be either publicly or privately owned.

Section 6(f) is part of the Land and Water Conservation Fund (LWCF) Act, which was designed to provide restrictions for conversion of public recreation facilities funded with LWCF money. The LWCF Act provides funds for the acquisition and development of public outdoor recreation facilities that could include community, county, and state parks, trails, fairgrounds, conservation areas, boat ramps, shooting ranges, etc. Facilities that are LWCF-assisted require mitigation that includes replacement land of at least equal value and recreation utility.

As mentioned above, there are two major park land/public lands in the vicinity of the property, the Powhatan State Park and the Powhatan Wildlife Management Area.

#### **4.4 AGRICULTURE**

The checklist for Farm and Forest Land Protection has not been completed to date. However, at this time, the property is not being used to produce any food, feed, fiber, forest product, forage, or other agricultural crop of significant value to the community.

#### **4.5 TOPOGRAPHY**

This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with very limited clearing of trees required to construct the project. The site generally slopes towards the west with grades varying between 2 and 12 percent.

#### 4.6 TRAFFIC AND TRANSPORTATION

Maximum occupancy of the firing range at the conclusion of Phase II will be 200 people (maximum occupancy of the classroom). However, it is anticipated that the true maximum usage of the facility will be limited to 90 people, assuming all shooting lanes are used and there are range masters and other staff present. Access to the facility will be through the prison property. No additional access to public roads is planned.

#### 4.7 AIR QUALITY

The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for the protection of public health and the environment (40 CFR 50). These standards establish limits for six specific criteria pollutants: nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>) 1-hour and 8-hour, sulfur dioxide (SO<sub>2</sub>), lead (Pb), and inhalable particulate matter (PM<sub>10</sub>; particles with an aerodynamic diameter less than or equal to 10 microns, and PM<sub>2.5</sub>; particles with an aerodynamic diameter less than or equal to 2.5 microns).

Based on the ambient (outdoor) levels of the criteria pollutants, EPA evaluates individual Air Quality Control Regions (AQCRs) to establish whether they satisfy the NAAQS. Areas that satisfy the NAAQS are classified as attainment areas, and areas that exceed the NAAQS for one or more pollutants are classified as nonattainment areas for those pollutants. Regions that lack sufficient monitoring data for a particular pollutant are considered unclassifiable with respect to that pollutant.

Powhatan County has been classified by the EPA as an attainment area for all six NAAQS parameters.

The EPA has identified a group of 21 hazardous air pollutants as mobile source air toxics in an EPA final rule, *Control of Emissions of Hazardous Air Pollutants from Mobile Sources*. From this list of 21 pollutants, the EPA created a list of six priority mobile source air toxics (MSATs). These are *benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene*. This project is anticipated to have no meaningful impacts on traffic volumes or vehicle mix for the area, since the site will not be used continuously. The project is therefore exempt from MSTa evaluation.

#### 4.8 GEOLOGY AND SOILS

The project Site is located in the Piedmont Region of Virginia which is characterized by gently rolling topography between the coastal plain and the mountains of the Blue Ridge Regions. The predominant soil on the site is Cecil fine sandy loam, consisting of mapping units 6B2 (approximately 58% of the site) and 6C2 (approximately 42% of the site). Cecil is a gently sloping to moderately sloping (2 to 7 percent - map unit 6B2) to strongly sloping to moderately steep (7 to 15 percent - map unit 6C2), very deep, well drained soil. Typically the surface layer is fine sandy loam about 4 inches thick. The surface layer has a low content of organic matter. The subsurface layer down to a depth of 4 to 6 feet below the ground surface is medium stiff to hard, red-brown low-plasticity clay (CL) with varying amounts of sand and loose to firm, red-brown clayey sand (SC). The subsoil layer to depths greater than 30 feet generally consisted of medium stiff to hard, tan to brown silt (ML) with varying amounts of medium sand and mica.

The slowest permeability for the soil is moderate, with a typical range of 0.6 to 2 inches per hour. The Hydrologic Soil Group (HSG) is B. The erodibility factor (K) ranges from 0.28 at the surface to approximately 0.20 from one foot to 5 feet below grade. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet.

#### 4.9 WETLANDS

Wetlands are defined as "...areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" [33 CFR 328.3(b)]. Wetlands are regulated by the USACE under Section 404 of the CWA. Additionally, Executive Order 11990 requires all federal agencies to minimize impacts to wetlands when conducting specific activities.

Waters of the United States means, "All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters, which are subject to the ebb and flow of the tide. This includes interstate wetlands, as well as all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The use, degradation or destruction of which could affect interstate or foreign commerce including any such waters" [33 CFR 328.3(b)]. Waters of the United States are regulated by the USACE under Section 404 of the CWA. Additionally Executive Order 11990

requires all federal agencies to minimize impacts to waters of the United States when conducting specific activities.

According to the National Wetland Inventory (NWI) maps, no wetlands are located on the project site. A copy of the wetland map is included in Appendix A.

#### **4.10 PONDS**

According to the topographic maps, the NWI map, and recent aerial photographs, no ponds are located on the Site.

#### **4.11 STREAM/RIVER CROSSINGS**

Perennial streams are identified as streams possessing continuous flow during the entire year and are represented by a solid blue line and named on USGS 7.5-minute topographic maps. Intermittent streams are characterized as having a base flow (groundwater discharge) at least some time during the year, and are represented as a dashed blue line on USGS 7.5-minute topographic maps and show an obvious connection to the watershed.

According to the topographic maps, the NWI map, and recent aerial photographs, no streams or rivers are located on the Site. Drainage ditches are present which manage surface water. Runoff from the four drainage areas conveys in a westerly direction to an intermittent stream located to the west of the project area. The intermittent stream flows in a northerly direction to an earth berm located approximately 3400 feet downgradient from the project site, which ultimately discharges to the James River located approximately 1.2 miles to the north.

#### **4.12 FOREST COVER FEATURES**

The project area is an open field, and is bordered on the North and Northwest sides of mixed upland hardwoods and evergreens. The bordered forest canopy is characterized by the presence of scarlet oak, northern red oak, post oak, white oak, yellow poplar, sweetgum, loblolly pine, shortleaf pine and Virginia pine.

#### **4.13 ANIMAL HABITAT**

According to information available on the Virginia Fish and Wildlife Information System website (<http://www.vafwis.org/fwis>), there are 430 known or likely species that are listed by the federal government or Commonwealth of Virginia as threatened, endangered or are species of concern. In Powhatan County, the James River is listed as an Anadromous Fish Use Area. A copy of the summary available from the Virginia Fish and Wildlife Information System is included in Appendix B.

The project study area has been tilled and farmed for over 20 years. Due to the previously cleared and disturbed area, no habitat destruction will occur.

#### **4.14 CULTURAL RESOURCES/HISTORY**

A review for cultural resources has not been completed to date.

#### **4.15 CHESAPEAKE BAY PRESERVATION AREAS**

Information obtained from the Powhatan County Department of Planning and Community Development indicates that the county is not required to and does not participate in the Chesapeake Bay Program as this jurisdiction is not regulated by the Chesapeake Bay Preservation Act (CBPA). Therefore, development in the project study area is not regulated by the CBPA.

#### **4.16 FLOODPLAIN**

Executive Order 11988, Floodplain Management, and subsequent federal floodplain management guidelines mandate an evaluation of floodplain impacts. When available, flood hazard boundary maps (National Flood Insurance Program) and flood insurance studies for the project area are used to determine the limits of the base (100-year) floodplain and the extent of encroachment.

The FEMA guidelines 23 CFR 650 have identified the base (100-year) flood as the flood having the 1 percent probability of being equaled or exceeded in any given year. The base floodplain is the area of 100-year flood hazard within a county or community. The regulatory floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood discharge can be conveyed without increasing the base flood elevation more than a specified amount. FEMA has mandated that projects can cause no rise in the regulatory floodway and a 1-foot cumulative rise for all projects in the base (100-year) floodplain.

Based on a review of the Flood Insurance Rate Map (FIRM) for Powhatan County, Virginia (Map Number 51145C0065B dated February 6, 2008), the site is not located within the 100 year flood plain.

## **5.0 ENVIRONMENTAL CONSEQUENCES**

This section describes the environmental impacts and identifies environmental consequences of proceeding with the project. Impacts in the project study area will accrue from the approximately 18 acres of land that will be disturbed for construction of a proposed training facility. It is envisioned that disturbance will be generally confined to an area of an existing field. Therefore, approximately 90 percent of the area of disturbance will be located within the boundaries of existing field.

### **5.1 LAND USE AND ZONING**

Use of the property as a firing range and training facility is consistent with the current use as a correctional facility. Development as a firing range is not anticipated to involve a change in zoning.

### **5.2 COMMUNITY FACILITIES**

The project will not decrease or negatively affect any existing recreational facilities or community facilities.

### **5.3 PARK LANDS AND PUBLIC LANDS SECTION 4(F)/6(F) PROPERTIES**

No 4 and 6(f) impacts are anticipated by the project.

### **5.4 AGRICULTURE**

The checklist for Farm and Forest Land Protection has not been completed to date. However, at this time, the property is not being used to produce any food, feed, fiber, forest product, forage, or other agricultural crop of significant value to the community.

### **5.5 TRAFFIC AND TRANSPORTATION**

A verbal response to the initial scoping letter was received from a VDOT official, stating that a traffic study may be required by the agency. The VDOT official stated that he did not have enough information regarding the project in the initial scoping letter to respond to the project. To date, no written response has been received.

Since the facility will not be utilized on a daily basis, the project is anticipated to have no meaningful impacts on traffic volumes or vehicle mix for the area.

## **5.6 AIR QUALITY**

Air quality impacts during construction will be limited to emissions from heavy equipment and dust. Dust levels will be mitigated by clearing only the amount of ground necessary at any one time, and by a water spraying program.

Long-term air quality impacts will be limited. Lead bullets will be captured by a bullet trap to limit shatter and dust formation.

## **5.7 WETLANDS**

According to the NWI maps, no wetlands are located on the project site.

## **5.8 PONDS**

No ponds are located onsite.

## **5.9 WATER QUALITY**

The stormwater quality measures include the following:

- Grassed swales – Grassed swales will collect and convey stormwater from the parking lot area and future building areas (Phases 2 to 4) to the bio-retention basin. Grassed swales will provide some pre-treatment of stormwater runoff prior to discharge into the bioretention basin.
- Bio-retention basin – A bio-retention basin has been provided to treat water from the parking lot area and future building areas (Phases 2 to 4). The outlet from the basin will discharge to a gently sloping vegetated swale and into a level spreader. The level spreader will discharge into an undisturbed area with existing vegetation maintained.
- HEPA Filter Units – Due to the nature of the firing ranges and the potential for lead contamination, advanced stormwater quality will be provided using HEPA filter units. The HEPA

filter units will discharge to a gently sloping vegetated swale and into a level spreader. The level spreader will discharge into an undisturbed area with existing vegetation maintained.

- Vegetative cover – Most of the development area will be completed with a vegetative cover providing infiltration and treatment of stormwater. In addition, existing vegetation surrounding the project limits will be maintained.

#### **5.10 FOREST COVER FEATURES**

The project area is currently a mowed and tilled field. No impacts to forest cover features are anticipated.

#### **5.11 ANIMAL HABITAT**

No adverse or significant impacts to plant and animal habitat are envisioned as a result of this project. A Soil Erosion and Sediment Control Plan (SESCP) and Stormwater Management Plan (SMP) has been prepared and approved by the Virginia Department of Conservation and Recreation. This plan specifically addresses the construction activities associated with proposed project, as well as implementation of stormwater management controls during and after construction.

The project study area has been tilled and farmed for over 20 years. Due to the previously cleared and disturbed area, no habitat destruction will occur.

As there are no known occurrences of threatened and endangered plant and animal species on the project Site, no adverse or significant impacts to such species are envisioned as a result of this project.

#### **5.12 CULTURAL RESOURCES/HISTORY**

Based on a preliminary review, no significant archaeological sites or historic structures have been identified on the project site.

#### **5.13 FLOODPLAIN**

The Site is not located within the 100 year floodplain. No structures will be located in a floodplain area, therefore no impacts to floodplains are anticipated from this project.

#### 5.14 SOUND MANAGEMENT

The partnering agencies intend to incorporate the following sound management plan for the proposed outdoor firing ranges.

**Site Selection within a naturally vegetated area:** The site is located in an area with up to 500 feet wide natural vegetation immediately downrange of the firing range. A mature growth of hardwoods (30 foot in height and greater) is located to the north (500 ft thick), west (over 2 miles thick) and east (1 mile thick) of the proposed ranges. The vegetation line also continues around to the southern end (500 ft thick) of the field where the ranges are proposed. The site vegetation conditions are considerably greater than recommendations for sound mitigation:

*...that 65-100 foot wide stand of trees and shrubs are needed to reduce noise. For optimum results, the trees should be close to the source as possible (Tree and Shrubs for Noise Abatement, Nebraska AG. Experimental Station Research Bulletin\246 July 1971).*

**Earthen Berm Walls:** The proposed firing range design includes enclosure of each of the firing ranges with 15-foot high earthen side berms and a 20-foot high berm at the backstop area. An earthen berm is also included behind the shooting line to minimize sound in the southern direction. According to the National Rifle Association Range Source Book, earthen berms will serve to eliminate noise.

*To eliminate the direct source-to-receiver path of noise, construct a barrier, berm or wall. (NRA Range Source Book).*

**Bullet Containment:** The current design includes the use of earthen backstops for bullet containment. As funding is appropriated, the facility intends to upgrade the backstops into granular ballistic rubber media that will add to the sound mitigation plan for the facility.

**Operational Controls:** The final sound management approach includes incorporation of operational controls to include:

#### 5.15 LEAD MANAGEMENT PLAN

The partnering agencies intend to incorporate the following lead management plan as discussed in the EPA Best Management Plan for Outdoor Firing Ranges to include:

**Bullet Containment Design:** The bullet containment backstops are designed to collect drainage from the backstop and direct any stormwater flow toward a HEPA filtration system. The initial design includes an earthen backstop however as funding is approved, the range will incorporate a granular ballistic rubber backstop to minimize the risk of lead in soil. While the earthen backstop is in use, the facility will monitor soil conditions to control the migration of lead.

**Testing and control of soil pH:** Lead is less mobile in soil under pH conditions ranging from 6.5 to 8.5. A soil sample will be tested (either by laboratory or simple field methods). Soil additives will be used to control the soil pH.

**Vegetation:** Slopes of the backstop will be vegetated to control erosion, which in turn will control migration of sediment.

**Site Inspections:** The range master will perform regular visual inspections of the bullet containment area for observations of bullet accumulation. These inspections will identify the need for maintenance activities that may include: grading of backstop or recycling event.

**Lead Recycling:** The facility will include recycling of lead bullets into its management plan. Recycling events will be scheduled based on findings of the inspections of the bullet containment backstops.

## 5.16 SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY ALTERNATIVE

### 5.16.1 Alternative A & D (No Action)

There will be no impacts with Alternative A & D as no action will be taken. If this alternative is chosen, the agencies will have to continue borrowing. These facilities will be borrowed at the owner convenience.

### 5.16.2 Alternative B & C

Impacts associated with Alternative B (Not recommend) **Alternative C (Proposed Action)** are summarized as minimal or short term during construction. Best management practices will be implemented during project construction in order to minimize or eliminate environmental impacts associated with project development.

## 6.0 REFERENCES

### 6.1 AGENCIES CONTACTED

In preparation of this EIR, the Department of Game and Inland Fisheries (DGIF) contacted representatives of the Virginia Department of Historic Resources, Capital Region Preservation Office, and the Powhatan County Department of Planning and Community Development. MACTEC contacted individuals listed in Table 1.

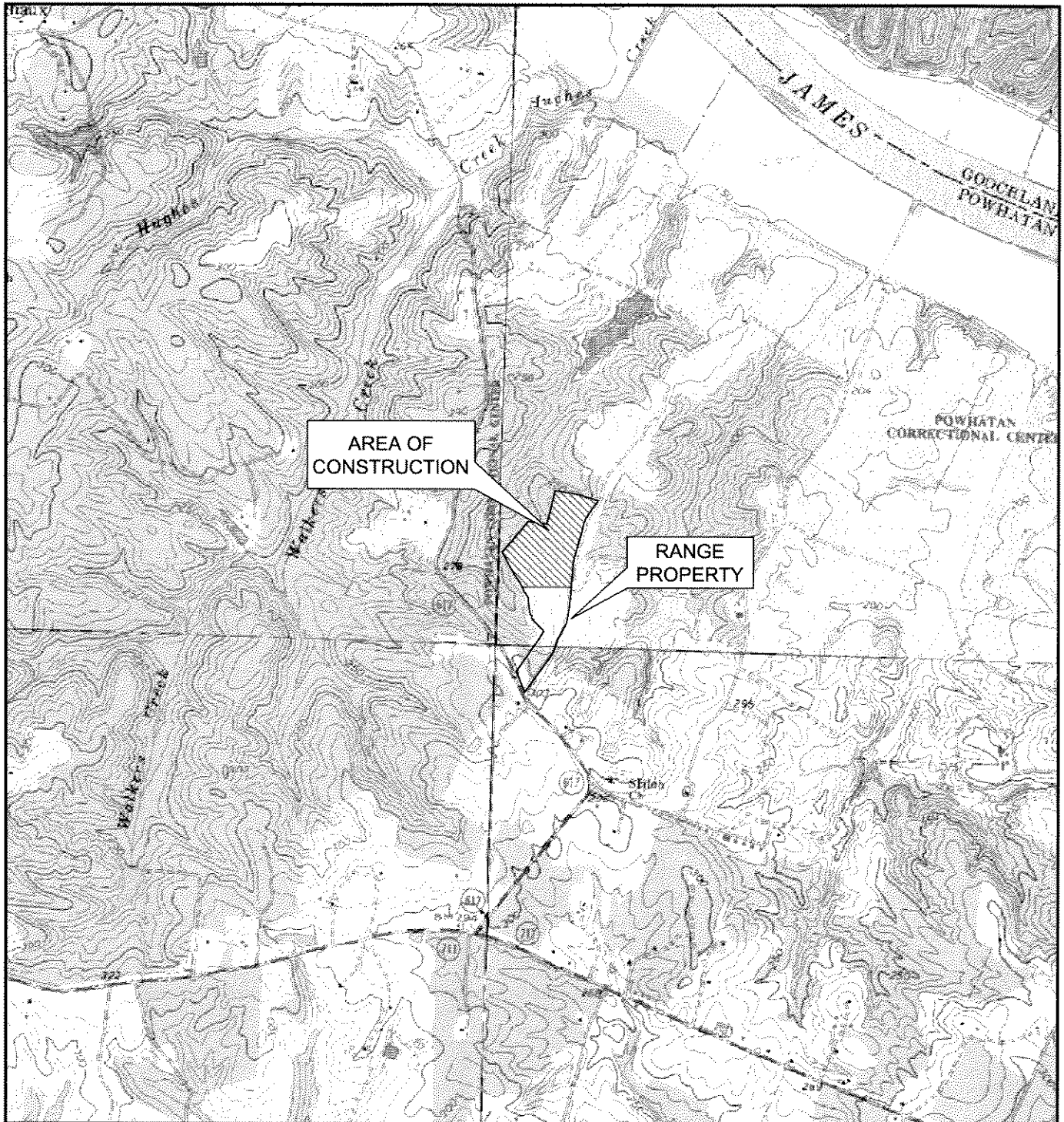
### 6.2 PERMITS

The partnering agencies will comply with all DGS/DEB/BCOM requirements for construction planning and approvals and subsequent building permit. The Department will comply with DCR regarding erosion & sediment and storm water management plan approval.

### 6.3 REFERENCES

- *Soil Survey of Powhatan County*, Prepared by the United States Department of Agriculture, Soil Conservation Service in cooperation with Virginia Polytechnic Institute and State University prepared by the Soil Conservation Service (May 1988)
- Phone conversation with Shawn Reynolds (and DGIF), Erosion and Sediment Planner, Powhatan County Department of Planning and Community Development, 05/19/08, indicating that the county is not required to and does not participate in the Chesapeake Bay Program as this jurisdiction is not regulated by the Chesapeake Bay Preservation Act (CBPA).
- *Powhatan County Virginia Comprehensive Plan*, Powhatan County Board of Supervisors, January 12, 1998.

## FIGURES



SOURCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE  
MAP, PERKINSVILLE, VIRGINIA, 1968,  
PHOTOREVISED 1987.

0 1000 2000  
SCALE IN FEET



**MACTEC**  
2456 Fortune Drive, Suite 100  
Lexington, Kentucky 40509  
Phone: (859) 255-3308

**TOPOGRAPHIC MAP**  
VIRGINIA LAW ENFORCEMENT TRAINING CENTER  
POWHATAN COUNTY, VIRGINIA  
PROJECT NUMBER: 3111-09-0552

SCALE	1" = 2000'
DATE	10/15/2009
DRAWN BY	KDR
APPROVED BY	SMD

**FIG.**  
**1**



SOURCE: COMMONWEALTH OF VIRGINIA, FEBRUARY 1, 2007

**MACTEC**  
 2456 Fortune Drive, Suite 100  
 Lexington, Kentucky 40509  
 Phone: (859) 255-3308

**AERIAL PHOTOGRAPH**  
 VIRGINIA LAW ENFORCEMENT TRAINING CENTER  
 POWHATAN COUNTY, VIRGINIA  
 PROJECT NUMBER: 3111-09-0552

SCALE	1" = 1600'
DATE	10/15/2009
DRAWN BY	KDR
APPROVED BY	SMD

**FIG.  
2**



## TABLES

Table 1  
Environmental Impact Review  
Scoping Request Notification Tracking Summary  
Virginia State Law Enforcement Training Facility  
Powhatan County, Virginia

Contact person	Summary of Contact to date	Follow up Action Items
Joyce Knight Dept. of Agriculture & Consumer Services Washington Building, Capitol Square 1100 Bank Street Richmond, Virginia 23219 (804) 786-2373 (804) 371-6097 (fax)	Joyce called to provide correct contact person - Keith Tignor (804.786.3515)  No formal response received to date	
Larry Hart Dept. of Game & Inland Fisheries 4010 West Broad Street Richmond, Virginia 23230 (804) 367-1000 (804) 367-2311 (fax)	Correct contact is Shiril Dressler 804.367.6913 (he forwarded letter)  Shiril called on 9/30/09 - stated information submitted is sufficient for her review - review will take 30 days. Call her in 30 days if we have not heard from her.	Call Shiril Dressler on 10/22/09 if we have not heard from her before then.
Dept. of Health Office of Environmental Health PO Box 2448 Richmond, Virginia 23218 (804) 864-7473 (804) 864-7475 (fax)	Called on 9/30/09 - the letter was forwarded to Powhatan County Health Department (804.598.5680); however, was just put in mail  No formal response received to date	
Rene Hypes Dept. of Conservation & Recreation 203 Governor Street Richmond, Virginia 23219 (804) 371-2708 (804) 371-6294 (fax) Rene.hypes@dcrr.virginia.gov	Lindsey Atkins called on 9/30/09 (804.225.2429) and stated that MACTEC needed to complete an information Service Order Form. After receiving the completed form, she has 30 days to review and provide comments. Comments should be taken into consideration when completing EIR Report.	Need to complete form which includes project description and topo map of area. Minimum charge appears to be \$90 plus additional charges for occurrences.
M. Amanda Lee Dept. of Historic Resources 2801 Kensington Avenue Richmond, Virginia 23221 (804) 367-2323 Amanda.lee@dir.virginia.gov	Amanda Lee was called on 9/29/09. She needs a completed Project Review form. Prior to submitting the form, background research must be conducted. She directed us to their website: www.dhr.virginia.gov	Need to complete background research either in person or via a researcher (appears to be a charge of \$75/search plus an additional \$10 for each site found in search area). After completing background research, need to complete project review form.
Ellie Irons Dept. of Environmental Quality Office of Environmental Impact Review PO Box 1105 Richmond, VA 23218 (804) 698-4000 (804) 698-4319 ellie.iron@deq.virginia.gov	A message was left on 9/30/09 Received a call on 9/30/09 - She does not respond to these type of requests but she will forward the request to the other depts. Within DEQ including the Office of Air Data Analysis, Waste Management Division and Water Division Letter received on 10/5/09 - Indicated that the Office of Env. Impact review does not respond to scoping requests; however, they have forwarded the request to various state, regional and local offices	

Table 1  
Environmental Impact Review  
Scoping Request Notification Tracking Summary  
Virginia State Law Enforcement Training Facility  
Powhatan County, Virginia

Contact person	Summary of Contact to date	Follow up Action Items
Department of Mines, Minerals and Energy (DMME) Washington Building, 8th Floor 1100 Bank Street Richmond, VA 23219 (804) 692-3202 Fax (804) 692-3237	Called on 9/30/09 - receptionist will follow-up to find correct person Matt Heller called on 9/30/09; requested a topographic map - information provided is sufficient - he will need 30 days to review - topo map emailed on 10/1/09 matt.heller@dmme.virginia.gov phone is: 434.951.6351	
Dept. of Forestry 900 Natural Resources Dr., Ste. 800 Charlottesville, Virginia 22903 (434) 977-6555 (434) 296-2369	9/30/09 - Contact Info. Services Dept - stated they would get back to me with a contact person name/number: Contact is Todd Groh todd.groh@dof.virginia.gov 434.220.9044 He called on 10/1/09 and requested a topographic map. This was emailed on 10/1/09 Email received on 10/5/09 - No significant Impact Response	
Dale Totten, PE Virginia Dept. of Transportation 3301 Speaks Drive Midlothian, Virginia 23112 (804) 674-2385	Mr. Totten left a message on 9/30/09 - stated that there was not enough information in the initial scoping letter for him to draw any conclusions. He needed information regarding traffic volumes, access roads, improvements, and possibly may need a traffic study. SMD returned his call on 9/30/09 and left message explaining that this was just an initial scoping request. At this point, we were just looking for guidance in preparing the more detailed EIR Report.	Need to determine if more information is available now to provide to the VDOT or determine if we just need to address his comments in the final report.
Kyle Winter Department of Environmental Quality Piedmont Regional Office 4949-A Cox Road Glen Allen, VA 23060-6295 (804) 527-5020 (804) 527-5106 (fax)	SMD left message on 9/30/09 Kelley West is the actual contact person 804.527.5029 She called on 10/1/09 and will respond next week. Received formal response on 10/08/09	Summary of Response: <i>Erosion and sediment controls should be properly implemented and maintained throughout all phases of construction. E &amp; S controls and Best Management Practices (BMPs) should be inspected/repaired before and after rain events. Please follow all standards and specifications under the DCR Erosion &amp; Sediment Controls Handbook (1992, 3rd Edition). DEQ recommends maximizing pervious surface areas and green spaces in the construction design to reduce runoff and the environmental impact associated with urban runoff.</i>

[kyle.winter@deq.virginia.gov](mailto:kyle.winter@deq.virginia.gov)

Note: The DCR Division of Chesapeake Bay Local Assistance, Virginia Institute of Marine Science, and Virginia Marine Resources Commission were not contacted given the location of the proposed facility. Shaded contacts indicate that we have received a response.

## APPENDICES

**APPENDIX A**  
**AGENCY COORDINATION**



engineering and constructing a better tomorrow

September 22, 2009

Joyce Knight  
Dept. of Agriculture & Consumer Services  
Washington Building, Capitol Square  
1100 Bank Street  
Richmond, Virginia 23219  
(804) 786-2373  
(804) 371-6097 (fax)

Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

Dear Ms. Knight:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

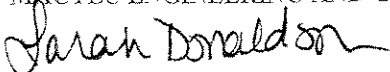
A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

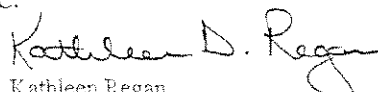
This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

  
Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

MACTEC Engineering and Consulting, Inc.

2456 Fortune Drive, Suite 100 • Lexington, KY 40509 • Phone: 859.255.3308 • Fax: 859.254.2327

[www.mactec.com](http://www.mactec.com)



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September 22, 2009

Larry Hart  
Dept. of Game & Inland Fisheries  
4010 West Broad Street  
Richmond, Virginia 23230  
(804) 367-1000  
(804) 367-2311 (fax)

Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

Dear Mr. Hart:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.


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This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

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Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

MACTEC Engineering and Consulting, Inc.

2456 Fortune Drive, Suite 100 • Lexington, KY 40509 • Phone: 859.255.3308 • Fax: 859.254.2327

[www.mactec.com](http://www.mactec.com)

**Donaldson, Sarah**

---

**From:** Ewing, Amy (DGIF) [Amy.Ewing@dgif.virginia.gov]  
**Sent:** Tuesday, November 03, 2009 11:43 AM  
**To:** Donaldson, Sarah  
**Cc:** Regan, Kathleen; Watts, Allester (DGIF); Irons, Ellie  
**Subject:** ESSLog# 30161\_Virginia State Law Enforcement Training Facility

Ms. Donaldson,

We have reviewed your request for information regarding the subject project that proposes to construct a training facility adjacent to Deep Meadows Correctional Center Canine Training Facility in Powhatan County, VA.

According to our records, the James River is located in the project vicinity and has been designated a Threatened and Endangered Species Water due to the presence of state Endangered brook floater and state Threatened Atlantic pigtoe. In addition, this river has been designated an Anadromous Fish Use Area.

A review of aerial photography and our hydrography data layer confirms that there are no stream on the project site. Assuming instream work is not necessary to access, construct, and/or maintain this site and assuming adherence to erosion and sediment controls during construction, we do not anticipate this project to result in adverse impacts upon the listed wildlife resources mentioned above. If instream work is necessary, we recommend further coordination with our agency to ensure protection of listed wildlife resources under our jurisdiction.

To minimize overall impacts to wildlife and our natural resources, we offer the following comments about development activities: We recommend that the applicant avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable. We recommend maintaining undisturbed wooded buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams. We recommend maintaining wooded lots to the fullest extent possible. We recommend that the stormwater controls for this project be designed to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of Low Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.

It states in your request that no tree removal is necessary to construct the training facility. If tree removal is necessary to develop access to the site, provide staging areas, or for any other reason, we recommend that the tree removal adhere to a time of year restriction protective of resident and migratory songbird nesting from March 15 through August 15 of any year.

Please do not hesitate to contact me if you need further assistance. Thank you.

Amy

Amy M. Ewing  
Environmental Services Biologist  
Virginia Dept. of Game and Inland Fisheries  
4010 West Broad Street  
Richmond, VA 23230  
804-367-2211  
[amy.ewing@dgif.virginia.gov](mailto:amy.ewing@dgif.virginia.gov)



engineering and constructing a better tomorrow

September 22, 2009

Dept. of Health  
Office of Environmental Health  
PO Box 2448  
Richmond, Virginia 23218  
(804) 864-7000  
(804) 864-7475 (fax)

Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

To Whom it May Concern:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

Sarah M. Donaldson  
Project Coordinator

Kathleen Regan  
Project Manager

Enclosure: Project Maps



engineering and constructing a better tomorrow

September 22, 2009

Department of Mines, Minerals and Energy (DMME)  
Washington Building, 8th Floor  
1100 Bank Street  
Richmond, VA 23219  
(804) 692-3202  
Fax (804) 692-3237

Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

To Whom it May Concern:

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This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

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Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

Sarah M. Donaldson  
Project Coordinator

Kathleen Regan  
Project Manager

Enclosure: Project Maps



engineering and constructing a better tomorrow

September 22, 2009

Dept. of Forestry  
900 Natural Resources Dr., Ste. 800  
Charlottesville, Virginia 22903  
(434) 977-6555  
(434) 296-2369

Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

To Whom it May Concern:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

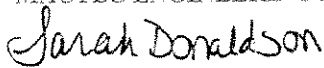
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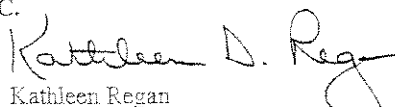
This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

  
Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

## Donaldson, Sarah

---

**From:** Groh, Todd (DOF) [todd.groh@dof.virginia.gov]  
**Sent:** Monday, October 05, 2009 11:37 AM  
**To:** Donaldson, Sarah  
**Subject:** RE: Topographic Map - EIR - VA Law Enforcement Training Facility

Sarah,

The Department of Forestry finds no significant impact to the forest resources of the Commonwealth for this project.

Todd A. Groh, Assistant Director  
Forest Resources Management Division  
Virginia Department of Forestry  
900 Natural Resources Drive, Suite 800  
Charlottesville, VA 22903  
434-220-9044

---

**From:** Donaldson, Sarah [mailto:SMDONALDSON@mactec.com]  
**Sent:** Thursday, October 01, 2009 9:35 AM  
**To:** Groh, Todd (DOF)  
**Subject:** Topographic Map - EIR - VA Law Enforcement Training Facility

Todd,

Thanks for the call back. Attached is a topographic map of the area of construction with an approximate property line. Please let me know if you require any additional information to respond to our initial EIR scoping request.

Thanks!  
Sarah

---

Sarah M. Donaldson, P.G. \ Senior Geologist  
MACTEC Engineering and Consulting, Inc. \ 2456 Fortune Dr., Suite 100 \ Lexington, KY 40509  
Direct (859) 566-3730 \ Office (859) 255-3308 \ Mobile (859) 338-5844 \ Fax (859) 254-2327  
Email: [smdonaldson@mactec.com](mailto:smdonaldson@mactec.com) \ Web: [www.mactec.com](http://www.mactec.com)

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engineering and constructing a better tomorrow

September 22, 2009

Rene Hypes  
Dept. of Conservation & Recreation  
203 Governor Street  
Richmond, Virginia 23219  
(804) 371-2708  
(804) 371-6294 (fax)  
Rene.hypes@dcr.virginia.gov

**Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia**

Dear Rene Hypes:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

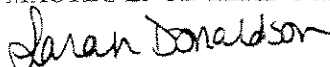
A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.


This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

  
Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

MACTEC Engineering and Consulting, Inc.

2456 Fortune Drive, Suite 100 • Lexington, KY 40509 • Phone: 859.255.3308 • Fax: 859.254.2327

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September 22, 2009

Ellie Irons  
Dept. of Environmental Quality  
Office of Environmental Impact Review  
PO Box 1105  
Richmond, VA 23218  
(804) 698-4000  
(804) 698-4319  
ellie.iron@deq.virginia.gov

**Subject:** Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

Dear Ms. Irons:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

Sarah M. Donaldson  
Project Coordinator

Kathleen Regan  
Project Manager

Enclosure: Project Maps

MACTEC Engineering and Consulting, Inc.

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## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY

*Street address:* 629 East Main Street, Richmond, Virginia 23219

*Mailing address:* P.O. Box 1105, Richmond, Virginia 23218

TDD (804) 698-4021

[www.deq.virginia.gov](http://www.deq.virginia.gov)

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4020  
1-800-592-5482

October 1, 2009

Ms. Sarah M. Donaldson  
MACTEC Engineering and Consulting, Inc.  
2456 Fortune Drive, Suite 100  
Lexington, Kentucky 40509

RE: Scoping request notification for the preparation of an Environmental Impact Report for the proposed Virginia State Law Enforcement Training Facility in Powhatan County

Dear Ms. Donaldson:

This is in response to your letter announcing the preparation of an Environmental Impact Report (EIR) for the proposed Virginia State Law Enforcement Training Facility (VSLETF) in Powhatan County, and soliciting comments on the scope of the document.

### PROJECT DESCRIPTION

According to your letter, the VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 mile northwest of the intersection with Monte Road. The project involves the construction of four small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. Proposed future development includes building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

### ENVIRONMENTAL REVIEW

The role of the Virginia Department of Environmental Quality (DEQ) in relation to the project under consideration is that DEQ's Office of Environmental Impact Review

Ms. Sarah Donaldson  
Proposed Virginia State Law Enforcement Training Facility

(OEIR) will coordinate Virginia's review of the EIR submitted pursuant to State EIR Law § 10.1-1188 and respond to the Secretary of the Commonwealth and the project proponent.

## PROJECT SCOPING

While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the preparation of the EIR for the proposed project. Therefore, we are sharing your letter with selected state, regional and local Virginia agencies, which include the following:

- Department of Environmental Quality:
  - Office of Environmental Impact Review
  - Piedmont Regional Office
  - Air Division
  - Waste Division
- Department of Game and Inland Fisheries
- Department of Conservation and Recreation:
  - Division of Soil and Water Conservation
  - Division of Planning and Recreation Resources
- Marine Resources Commission
- Department of Agriculture and Consumer Services
- Department of Health
- Department of Forestry
- Department of Mines, Minerals, and Energy
- Department of Historic Resources
- Department of Transportation
- Powhatan County, and
- Richmond Regional Planning District Commission.

The EIR must discuss five subjects specified by §10.1-1188, including: the environmental impact of the project including the impact on wildlife habitat and impact on farm and forest lands pursuant to Virginia Code § 3.2-204 through §3.2-205; adverse effects that cannot be avoided if the project is undertaken; measures proposed to minimize the impact of the project; alternatives to the proposed construction; and Irreversible environmental changes which would be involved in the project. A procedure manual with further information on State environmental impact reviews may be found at <http://www.deq.virginia.gov/eir/stateimpact.html>.

In order to ensure an effective coordinated review of the EIR, we will require 18 copies of the document when it is published. The submission must include at least 2 hard copies. The remaining copies may be provided on CDs (16), or you may send an electronic copy as an email attachment (size permitting), or make a copy available for viewing and download at a web site or ftp site.

Ms. Sarah Donaldson  
Proposed Virginia State Law Enforcement Training Facility

If you have questions about the State EIR review process, call me at (804) 698-4325 or John Fisher of this Office at (804) 698-4339.

I hope this information is helpful to you.

Sincerely,



Ellie L. Irons, Manager  
Office of Environmental Impact Review

Attachments

Ec: Kelley Harris, DEQ-PRO  
Kotur S. Narasimhan, DEQ-Air  
Paul Kohler, DEQ-Waste  
Amy Ewing, DGIF  
Robbie Rhur, DCR  
Tony Watkinson, VMRC  
Barry Matthews, VDH  
Todd Groh, VDF  
Matt Heller, DMME  
Roger Kirchen, DHR  
Keith Tignor, VDACS  
Melanie Allen, VDOT  
Carolyn Cios, Powhatan County  
Robert Crum, Richmond Regional PDC



engineering and constructing a better tomorrow

September 22, 2009

Kyle Winter  
Department of Environmental Quality  
Piedmont Regional Office  
4949-A Cox Road  
Glen Allen, VA 23060-6295  
(804) 527-5020  
(804) 527-5106 (fax)  
[Kyle.winter@deq.virginia.gov](mailto:Kyle.winter@deq.virginia.gov)

**Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia**

Dear Mr. Winter:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

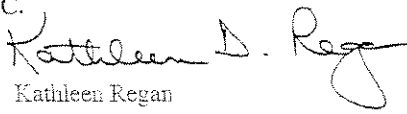
This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

  
Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

MACTEC Engineering and Consulting, Inc.

2456 Fortune Drive, Suite 100 • Lexington, KY 40509 • Phone: 859.255.3308 • Fax: 859.254.2327

[www.mactec.com](http://www.mactec.com)



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

PIEDMONT REGIONAL OFFICE

4949-A Cox Road, Glen Allen, Virginia 23060

(804) 527-5020 Fax (804) 527-5106

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Preston Bryant  
Secretary of Natural Resources

David K. Paylor  
Director

October 8, 2009

Sarah M. Donaldson  
Project Coordinator  
MACTEC Engineering and Consulting  
2456 Fortune Drive, Suite 100  
Lexington, KY 40509

RE: Scoping request for Virginia State Law Enforcement Training Facility, Old River Trail in Powhatan County, Virginia.

Dear Mrs. Donaldson,

We have received your letter stating that a Virginia State Law Enforcement Training facility is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training facility in Powhatan County, Virginia. The project site is approximately 18 acres of former agricultural land located along Old Trail Road. The proposed project consist of the construction of four small arms firing ranges with range towers, bleachers, and perimeter earthen berms. Also development of building structures to be used as shoot houses, classrooms, restrooms, parking lots, and dormitories. My comments are as follows:

Erosion and sediment controls should be properly implemented and maintained throughout all phases of construction. E & S controls and Best Management Practices (BMPs) should be inspected/repared before and after rain events. Please follow all standards and specifications under the DCR Erosion & Sediment Controls Handbook (1992, 3<sup>rd</sup> Edition). DEQ recommends maximizing pervious surface areas and green spaces in the construction design to reduce runoff and the environmental impact associated with urban runoff. At this time we have no additional comments or questions. Should you have any further questions or comments, please do not hesitate to email me at [Kelley.West@deq.virginia.gov](mailto:Kelley.West@deq.virginia.gov) or call me at 804-527-5029.

Sincerely,

A handwritten signature in cursive script that reads "Kelley H. West".

Kelley H. West  
Environmental Planner



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September 22, 2009

M. Amanda Lee  
Dept. of Historic Resources  
2801 Kensington Avenue  
Richmond, Virginia 23221  
(804) 367-2323  
Amanda.lee@dhr.virginia.gov

**Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia**

Dear Ms. Lee:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

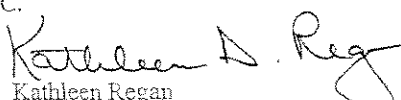
This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

  
Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

MACTEC Engineering and Consulting, Inc.

2456 Fortune Drive, Suite 100 • Lexington, KY 40509 • Phone: 859.255.3308 • Fax: 859.254.2327

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# COMMONWEALTH of VIRGINIA

## Department of Historic Resources

L. Preston Bryant, Jr.  
*Secretary of Natural Resources*

2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick  
*Director*

Tel: (804) 367-2323  
Fax: (804) 367-2391  
TDD: (804) 367-2386  
[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

November 23, 2009

Ms. Kathleen Regan, Project Manager  
MACTEC Engineering and Consulting, Inc.  
2456 Fortune Drive, Suite 100  
Lexington, Kentucky

Re: Virginia State Law Enforcement Training Facility (VSLETF) – Old River Trail  
Powhatan County  
DHR File No. 2009-1519

Dear Ms. Regan,

On September 28, 2009, the Virginia Department of Historic Resources (DHR) received information regarding the above referenced projects for our review and comment. We apologize for the delay in responding and regret to inform you that we do not have enough information to complete a review at this time.

Based upon a review of the information provided, we understand that you are in the process of developing an Environmental Impact Review (EIR) for the VSLETF. The proposed project includes the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. Future development includes construction of buildings to be used as shoot houses, restrooms, classrooms, and dormitories and construction of a gravel parking lot to serve the facility. The proposed project is a joint effort between the Virginia State Police, Federal Bureau of Investigations, Virginia Game and Inland Fisheries, and the Virginia Department of Corrections.

In order to make an informed decision regarding the proposed project's potential to affect the historic properties, DHR requests the following.

- A project review application form. [The project review application and its directions may be located at <http://www.dhr.virginia.gov/review/ProjectReviewForm.doc>. It is especially important that the contact information in number 5 and 6 is complete. Number 13, description, may be a few sentences or a paragraph or two that briefly and clearly communicates the scope of work (existing building/site, its past uses, date of construction, proposed changes if any, new construction, etc.). Photographs

Administrative Services  
10 Courthouse Ave.  
Petersburg, VA 23803  
Tel: (804) 863-1624  
Fax: (804) 862-6196

Capital Region Office  
2801 Kensington Office  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391

Tidewater Region Office  
14415 Old Courthouse Way  
2<sup>nd</sup> Floor  
Newport News, VA 23608  
Tel: (757) 886-2807  
Fax: (757) 886-2808

Roanoke Region Office  
1030 Penmar Avenue, SE  
Roanoke, VA 24013  
Tel: (540) 857-7585  
Fax: (540) 857-7588

Northern Region  
Preservation Office  
P.O. Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7030  
Fax: (540) 868-7033

of the project area are also very helpful whether the site is an existing building or undeveloped lot.]

- A USGS topographic map indicating the location and boundaries of the proposed project.
- An archives search. [Archives searches are provided by the Archives staff for a fee. See this link for details [http://www.dhr.virginia.gov/archives/archiv\\_searches.htm](http://www.dhr.virginia.gov/archives/archiv_searches.htm). For my purposes, a maps only search is appropriate. Depending on who may complete the form, there are two additional options for obtaining the archives search. These options include 1) coming into the archives in the office here in Richmond and completing the search themselves (small fee for printing and/or copies) or 2) utilizing the Data Sharing System (DSS) remotely. The second option is a database that may be used remotely and has a yearly subscription fee associated. For additional information on DSS, follow this link [http://www.dhr.virginia.gov/archives/data\\_sharing\\_sys.htm](http://www.dhr.virginia.gov/archives/data_sharing_sys.htm).]
- Photographs of the proposed project area
- Site plan for the proposed development.

Should you have any questions, I may be reached via email at [amanda.lee@dhr.virginia.gov](mailto:amanda.lee@dhr.virginia.gov).

Sincerely,



M. Amanda Lee, Historic Preservationist  
Office of Review and Compliance

Administrative Services  
10 Courthouse Ave.  
Petersburg, VA 23803  
Tel: (804) 863-1624  
Fax: (804) 862-6196

Capital Region Office  
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Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391

Tidewater Region Office  
14415 Old Courthouse Way  
2<sup>nd</sup> Floor  
Newport News, VA 23608  
Tel: (757) 886-2807  
Fax: (757) 886-2808

Roanoke Region Office  
1030 Penmar Avenue, SE  
Roanoke, VA 24013  
Tel: (540) 857-7585  
Fax: (540) 857-7588

Northern Region  
Preservation Office  
P.O. Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7030  
Fax: (540) 868-7033



engineering and constructing a better tomorrow

September 22, 2009

Dale Totten, PE  
Virginia Dept. of Transportation  
3301 Speaks Drive  
Midlothian, Virginia 23112  
Dale.totten@vdot.virginia.gov

Subject: Environmental Impact Review  
Scoping Request Notification  
Virginia State Law Enforcement Training Facility  
Old River Trail  
Powhatan County, Virginia

Dear Mr. Totten:

MACTEC Engineering and Consulting, Inc. (MACTEC) is working with TRS Range Services, LLC. (TRS) in order to complete an Environmental Impact Review (EIR) in accordance with *Procedure for Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality). As part of the process, MACTEC is submitting preliminary information regarding the project to select potentially interested regulatory agencies. MACTEC is seeking input and comments from regulatory agencies in order to prepare a scope of the EIR.

A Virginia State Law Enforcement Training Facility (VSLETF) is proposed for a parcel of land adjacent to the existing Deep Meadows Correctional Center Canine Training Facility in Powhatan County, Virginia. The VSLETF is a joint effort between several law enforcement agencies, including the Virginia State Police, Federal Bureau of Investigation, Virginia Department of Game and Inland Fisheries, and the Virginia Department of Corrections. The project site consists of approximately 18 acres of a former agricultural parcel located along Old Trail Road approximately 0.3 miles northwest of the intersection with Monte Road. The project involves the construction of four (4) small arms firing ranges with associated range towers, bleachers, and perimeter earthen berms. The proposed future development also includes a building structures to be used as shoot houses, restrooms, classrooms, and dormitories, and a new gravel parking area to serve the facility. The proposed disturbed area associated with this work is approximately 14 acres.

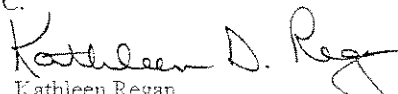
This project site is currently vacated agricultural land consisting primarily of grass and pasture cover. Wooded areas are located immediately to the west and north of project site, with no clearing of trees required to construct the project. The project site is contained within a large parcel that includes the Virginia Department of Corrections State Farm. Areas adjacent to the project site within the large parcel included wooded areas open fields and farm land. Property adjacent to the large parcel (State Farm) also includes woods, open fields and farm land.

Please review this information and identify any concerns or scoping requests that your agency may have regarding the project. Thank you for your time and attention to this matter. If you need additional information, please feel free to call Kathleen Regan at 859.566.3724.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

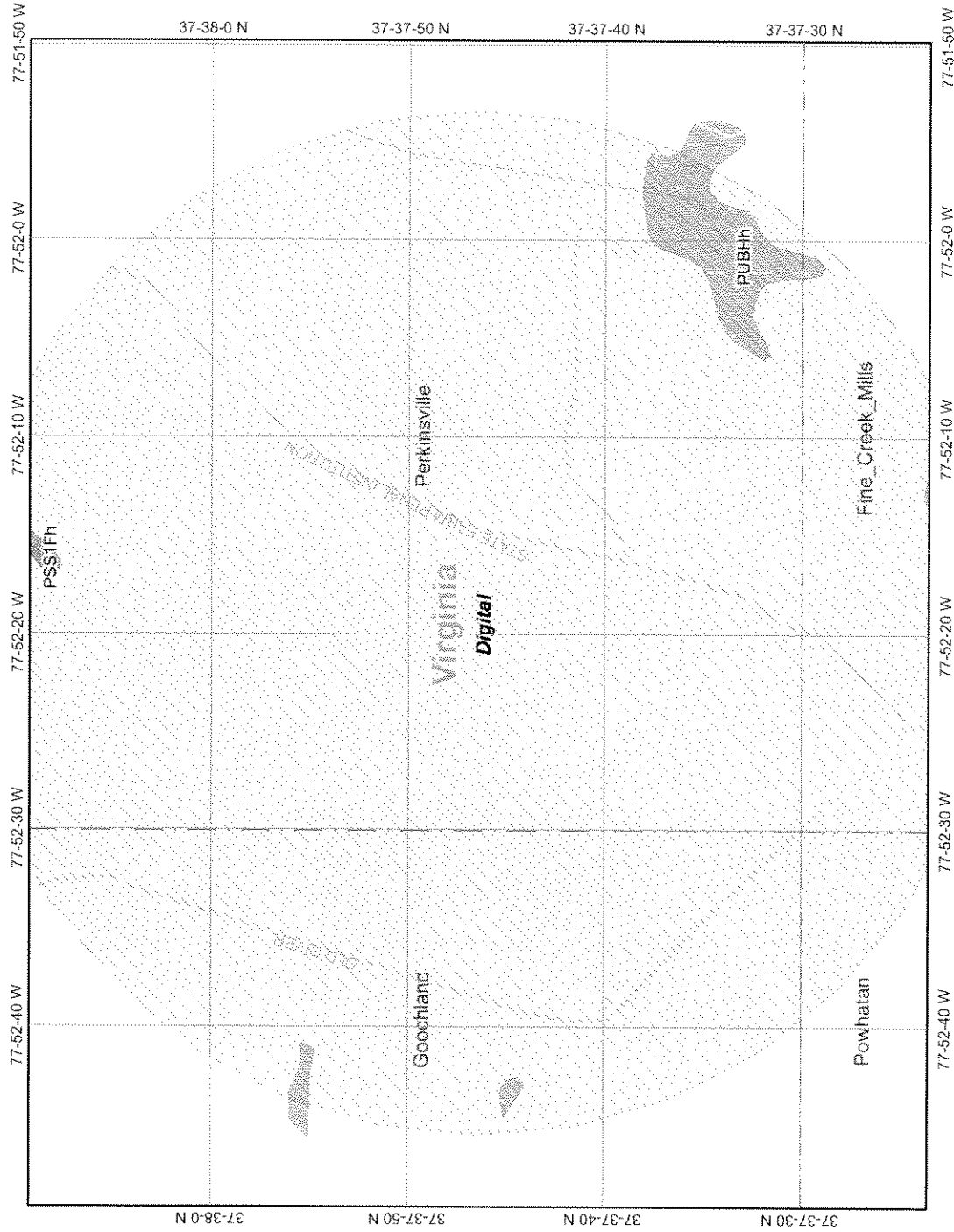
  
Sarah M. Donaldson  
Project Coordinator

  
Kathleen Regan  
Project Manager

Enclosure: Project Maps

**APPENDIX B**  
**WETLAND MAP**

# Internet Mapping Framework



Map center: 37° 37' 46" N, 77° 52' 19" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



## Legend

- Ohio\_wet\_scan
  - 0
  - 1
  - Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
  - Estuarine and Marine Deepwater
  - Estuarine and Marine Wetland
  - Freshwater Emergent Wetland
  - Freshwater Forested/Shrub Wetland
  - Freshwater Pond
  - Lake
  - Other
  - Riverine
- Lower 48 Available Wetland Data
  - Non-Digital
  - Digital
  - No Data
  - Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:9,874

**APPENDIX C**

**THE VIRGINIA FISH AND WILDLIFE INFORMATION SYSTEM**



# Virginia Department of Game and Inland Fisheries

10/15/2009 7:24:44 PM

## Fish and Wildlife Information Service

**VaFWIS Search Report** Compiled on 10/15/2009, 7:24:44 PM

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 Known or likely to occur within a **3 mile radius of 37,37,46.4**
**77,52,21.3**

 in **075 Goochland County, 145 Powhatan County, VA**

430 Known or Likely Species ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name
050034	SE	I	Bat, Rafinesque's eastern big-eared	Corynorhinus rafinesquii macrotis
060006	SE	II	Floater, brook	Alasmodonta varicosa
040129	ST	I	Sandpiper, upland	Bartramia longicauda
040293	ST	I	Shrike, loggerhead	Lanius ludovicianus
040093	FSST	II	Eagle, bald	Haliaeetus leucocephalus
060173	FSST	II	Pigtoe, Atlantic	Fusconaia masoni
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans
060029	FSSS	III	Lance, yellow	Elliptio lanceolata
040029	SS	II	Heron, little blue	Egretta caerulea caerulea
040213	SS	II	Owl, northern saw-whet	Aegolius acadicus
040266	SS	II	Wren, winter	Troglodytes troglodytes
030063	CC	III	Turtle, spotted	Clemmys guttata
040094	SS	III	Harrier, northern	Circus cyaneus
040204	SS	III	Owl, barn	Tyto alba pratincola
040264	SS	IV	Creeper, brown	Certhia americana
040364	SS		Dickeissel	Spiza americana
040366	SS		Finch, purple	Carpodacus purpureus
040285	SS		Kinglet, golden-crowned	Regulus satrapa
040112	SS		Moorhen, common	Gallinula chloropus cachinnans
040262	SS		Nuthatch, red-breasted	Sitta canadensis
040189	SS		Tern, Caspian	Sterna caspia
040278	SS		Thrush, hermit	Catharus guttatus
040314	SS		Warbler, magnolia	Dendroica magnolia
050045	SS		Otter, northern river	Lontra canadensis lataxina
040225		I	Sapsucker, yellow-bellied	Sphyrapicus varius
040319		I	Warbler, black-throated green	Dendroica virens
060084		I	Pigtoe, Virginia	Lexingtonia subplana

040052		II	Duck, American black	Anas rubripes
040105		II	Rail, king	Rallus elegans
040320		II	Warbler, cerulean	Dendroica cerulea
030068		III	Turtle, eastern box	Terrapene carolina carolina
040062		III	Redhead	Aythya americana
040181		III	Tern, common	Sterna hirundo
060145		III	Mussel, notched rainbow	Villosa constricta
010038		IV	Alewife	Alosa pseudoharengus
010131		IV	Eel, American	Anguilla rostrata
010040		IV	Shad, American	Alosa sapidissima
020069		IV	Salamander, eastern mud	Pseudotriton montanus montanus
020061		IV	Spadefoot, eastern	Scaphiopus holbrookii
030009		IV	Lizard, eastern slender glass	Ophisaurus attenuatus longicaudus
030045		IV	Ribbonsnake, common	Thamnophis sauritus sauritus
030017		IV	Scarletsnake, northern	Cemophora coccinea copei
030024		IV	Snake, eastern hog-nosed	Heterodon platirhinos
030033		IV	Snake, queen	Regina septemvittata
040349		IV	Blackbird, rusty	Euphagus carolinus
040100		IV	Bobwhite, northern	Colinus virginianus
040272		IV	Catbird, gray	Dumetella carolinensis
040337		IV	Chat, yellow-breasted	Icteria virens virens
040214		IV	Chuck-will's-widow	Caprimulgus carolinensis
040202		IV	Cuckoo, yellow-billed	Coccyzus americanus
040142		IV	Dowitcher, short-billed	Limnodromus griseus
040154		IV	Dunlin	Calidris alpina hudsonia
040240		IV	Flycatcher, willow	Empidonax traillii
040358		IV	Grosbeak, rose-breasted	Pheucticus ludovicianus
040028		IV	Heron, green	Butorides virescens
040229		IV	Kingbird, eastern	Tyrannus tyrannus
040344		IV	Meadowlark, eastern	Sturnella magna
040263		IV	Nuthatch, brown-headed	Sitta pusilla
040330		IV	Ovenbird	Seiurus aurocapilla
040312		IV	Parula, northern	Parula americana
040243		IV	Pewee, eastern wood	Contopus virens
040065		IV	Scaup, greater	Aythya marila
040391		IV	Sparrow, field	Spizella pusilla
040378		IV	Sparrow, grasshopper	Ammodramus savannarum

				pratensis
040248		IV	Swallow, northern rough-winged	Stelgidopteryx serripennis
040217		IV	Swift, chimney	Chaetura pelagica
040355		IV	Tanager, scarlet	Piranga olivacea
040273		IV	Thrasher, brown	Toxostoma rufum
040417		IV	Thrush, Bicknell's	Catharus bicknelli
040277		IV	Thrush, wood	Hylocichla mustelina
040375		IV	Towhee, eastern	Pipilo erythrophthalmus
040297		IV	Vireo, yellow-throated	Vireo flavifrons
040302		IV	Warbler, black-and-white	Mniotilta varia
040307		IV	Warbler, blue-winged	Vermivora pinus
040340		IV	Warbler, Canada	Wilsonia canadensis
040333		IV	Warbler, Kentucky	Oporornis formosus
040328		IV	Warbler, prairie	Dendroica discolor
040303		IV	Warbler, prothonotary	Protonotaria citrea
040305		IV	Warbler, worm-eating	Helmitheros vermivorus
040313		IV	Warbler, yellow	Dendroica petechia
040332		IV	Waterthrush, Louisiana	Seiurus motacilla
040215		IV	Whip-poor-will	Caprimulgus vociferus
040140		IV	Woodcock, American	Scolopax minor
060137		IV	Mussel, creeper	Strophitus undulatus
060005		IV	Mussel, triangle floater	Alasmidonta undulata
010188			Bass, largemouth	Micropterus salmoides
010186			Bass, smallmouth	Micropterus dolomieu
010183			Bluegill	Lepomis macrochirus
010123			Bullhead, brown	Ameiurus nebulosus
010122			Bullhead, yellow	Ameiurus natalis
010125			Catfish, channel	Ictalurus punctatus
010120			Catfish, white	Ameiurus catus
010066			Chub, bluehead	Nocomis leptocephalus
010373			Chub, bull	Nocomis raneyi
010103			Chub, creek	Semotilus atromaculatus
010067			Chub, river	Nocomis micropogon
010106			Chubsucker, creek	Erimyzon oblongus
010190			Crappie, black	Pomoxis nigromaculatus
010101			Dace, blacknose	Rhinichthys atratulus
010102			Dace, longnose	Rhinichthys cataractae
010060			Dace, mountain redbelly	Phoxinus oreas

010193		Darter, fantail	Etheostoma flabellare
010204		Darter, glassy	Etheostoma vitreum
010198		Darter, johnny	Etheostoma nigrum
010061		Darter, Roanoke	Percina roanoka
010213		Darter, shield	Percina peltata
010211		Darter, stripeback	Percina notogramma
010194		Darter, swamp	Etheostoma fusiforme
010104		Fallfish	Semotilus corporalis
010033		Gar, longnose	Lepisosteus osseus
010059		Goldfish	Carassius auratus
010129		Madtom, margined	Noturus insignis
010099		Minnow, bluntnose	Pimephales notatus
010408		Minnow, eastern silvery	Hybognathus regius
010148		Mosquitofish, eastern	Gambusia holbrooki
010054		Mudminnow, eastern	Umbra pygmaea
010163		Perch, pirate	Aphredoderus sayanus sayanus
010206		Perch, yellow	Perca flavescens
010056		Pickrel, chain	Esox niger
010182		Pumpkinseed	Lepomis gibbosus
010374		Quillback	Carpionodes cyprinus
010114		Redhorse, golden	Moxostoma erythrurum
010116		Redhorse, shorthead	Moxostoma macrolepidotum
010072		Shiner, comely	Notropis amoenus
010080		Shiner, common	Luxilus cornutus
010068		Shiner, golden	Notemigonus crysoleucas
010087		Shiner, highland (= southern rosyface; = redface)	Notropis micropteryx
010074		Shiner, rosefin	Lythrurus ardens
010073		Shiner, satinfin	Cyprinella analostana
010082		Shiner, spottail	Notropis hudsonius
010086		Shiner, swallowtail	Notropis procne
010058		Stoneroller, central	Campostoma anomalum
010108		Sucker, northern hog	Hypentelium nigricans
010118		Sucker, torrent	Thoburnia rathoecca
010105		Sucker, white	Catostomus commersoni
010178		Sunfish, bluespotted	Enneacanthus gloriosus
010180		Sunfish, redbreast	Lepomis auritus
010216		Walleye	Sander vitreus vitreus

010177		Warmouth	Lepomis gulosus
020004		Bullfrog, American	Lithobates catesbeianus
020012		Frog, eastern cricket	Acris crepitans crepitans
020008		Frog, northern green	Lithobates clamitans melanota
020013		Frog, pickerel	Lithobates palustris
020016		Frog, southern leopard	Lithobates sphenoccephalus utricularius
020018		Frog, upland chorus	Pseudacris feriarum feriarum
020019		Frog, wood	Lithobates sylvaticus
020065		Newt, red-spotted	Notophthalmus viridescens viridescens
020071		Peeper, northern spring	Pseudacris crucifer crucifer
020043		Salamander, eastern red-backed	Plethodon cinereus
020029		Salamander, four-toed	Hemidactylium scutatum
020035		Salamander, marbled	Ambystoma opacum
020038		Salamander, northern dusky	Desmognathus fuscus
020070		Salamander, northern red	Pseudotriton ruber ruber
020050		Salamander, southern two-lined	Eurycea cirrigera
020049		Salamander, spotted	Ambystoma maculatum
020051		Salamander, three-lined	Eurycea guttolineata
020080		Salamander, white-spotted slimy	Plethodon cylindraceus
020059		Toad, eastern American	Anaxyrus americanus americanus
020060		Toad, eastern narrow-mouthed	Gastrophryne carolinensis
020062		Toad, Fowler's	Anaxyrus fowleri
020006		Treefrog, Cope's gray	Hyla chrysoscelis
020007		Treefrog, gray	Hyla versicolor
030041		Brownsnake, northern	Storeria dekayi dekayi
030059		Cooter, eastern river	Pseudemys concinna concinna
030057		Cooter, northern red-bellied	Pseudemys rubriventris
030016		Copperhead, northern	Agkistrodon contortrix mokasen
030022		Cornsnake, red	Pantherophis guttatus
030049		Earthsnake, eastern smooth	Virginia valeriae valeriae
030044		Gartersnake, eastern	Thamnophis sirtalis sirtalis
030038		Greensnake, northern rough	Opheodrys aestivus aestivus
030026		Kingsnake, eastern	Lampropeltis getula getula
030027		Kingsnake, mole	Lampropeltis calligaster rhombomaculata
030002		Lizard, eastern fence	Sceloporus undulatus
			Lampropeltis triangulum

030029			Milksnake, eastern	triangulum
030018			Racer, northern black	Coluber constrictor constrictor
030008			Racerunner, eastern six-lined	Aspidoscelis sexlineata sexlineata
030023			Ratsnake, eastern	Pantherophis alleghaniensis
030006			Skink, broad-headed	Plestiodon laticeps
030004			Skink, common five-lined	Plestiodon fasciatus
030007			Skink, little brown	Scincella lateralis
030005			Skink, southeastern five-lined	Plestiodon inexpectatus
030077			Slider, red-eared	Trachemys scripta elegans
030042			Snake, northern red-bellied	Storeria occipitomaculata occipitomaculata
030020			Snake, northern ring-necked	Diadophis punctatus edwardsii
030052			Stinkpot	Sternotherus odoratus
030051			Turtle, eastern mud	Kinosternon subrubrum subrubrum
030060			Turtle, eastern painted	Chrysemys picta picta
030050			Turtle, eastern snapping	Chelydra serpentina serpentina
030034			Watersnake, northern	Nerodia sipedon sipedon
030019			Wormsnake, eastern	Carphophis amoenus amoenus
040346			Blackbird, red-winged	Agelaius phoeniceus
040282			Bluebird, eastern	Sialia sialis
040068			Bufflehead	Bucephala albeola
040361			Bunting, indigo	Passerina cyanea
040401			Bunting, snow	Plectrophenax nivalis nivalis
040357			Cardinal, northern	Cardinalis cardinalis
040258			Chickadee, Carolina	Poecile carolinensis
040113			Coot, American	Fulica americana
040024			Cormorant, double-crested	Phalacrocorax auritus
040353			Cowbird, brown-headed	Molothrus ater
040373			Crossbill, white-winged	Loxia leucoptera
040255			Crow, American	Corvus brachyrhynchos
040256			Crow, fish	Corvus ossifragus
040198			Dove, mourning	Zenaida macroura carolinensis
040063			Duck, ring-necked	Aythya collaris
040061			Duck, wood	Aix sponsa
040367			Finch, house	Carpodacus mexicanus
040221			Flicker, northern	Colaptes auratus
040239			Flycatcher, Acadian	Empidonax virescens

040234			Flycatcher, great crested	Myiarchus crinitus
040053			Gadwall	Anas strepera
040284			Gnatcatcher, blue-gray	Poliophtila caerulea
040067			Goldeneye, common	Bucephala clangula americana
040371			Goldfinch, American	Carduelis tristis
040045			Goose, Canada	Branta canadensis
040352			Grackle, common	Quiscalus quiscula
040008			Grebe, pied-billed	Podilymbus podiceps
040360			Grosbeak, blue	Guiraca caerulea caerulea
040365			Grosbeak, evening	Coccothraustes vespertinus
040099			Grouse, ruffed	Bonasa umbellus
040167			Gull, herring	Larus argentatus
040089			Hawk, broad-winged	Buteo platypterus
040086			Hawk, Cooper's	Accipiter cooperii
040088			Hawk, red-shouldered	Buteo lineatus lineatus
040087			Hawk, red-tailed	Buteo jamaicensis
040090			Hawk, rough-legged	Buteo lagopus johannis
040085			Hawk, sharp-shinned	Accipiter striatus velox
040027			Heron, great blue	Ardea herodias herodias
040218			Hummingbird, ruby-throated	Archilochus colubris
040252			Jay, blue	Cyanocitta cristata
040387			Junco, dark-eyed	Junco hyemalis
040098			Kestrel, American	Falco sparverius sparverius
040119			Killdeer	Charadrius vociferus
040220			Kingfisher, belted	Ceryle alcyon
040286			Kinglet, ruby-crowned	Regulus calendula
040245			Lark, horned	Eremophila alpestris
040253			Magpie, black-billed	Pica hudsonia
040051			Mallard	Anas platyrhynchos
040251			Martin, purple	Progne subis
040078			Merganser, common	Mergus merganser americanus
040271			Mockingbird, northern	Mimus polyglottos
040216			Nighthawk, common	Chordeiles minor
040261			Nuthatch, white-breasted	Sitta carolinensis
040348			Oriole, Baltimore	Icterus galbula
040347			Oriole, orchard	Icterus spurius
040095			Osprey	Pandion haliaetus carolinensis
040209			Owl, barred	Strix varia

040206		Owl, great horned	Bubo virginianus
040211		Owl, short-eared	Asio flammeus
040101		Pheasant, ring-necked	Phasianus colchicus
040236		Phoebe, eastern	Sayornis phoebe
040197		Pigeon, rock	Columba livia
040054		Pintail, northern	Anas acuta acuta
040254		Raven, common	Corvus corax
040341		Redstart, American	Setophaga ruticilla
040275		Robin, American	Turdus migratorius
040132		Sandpiper, solitary	Tringa solitaria
040134		Sandpiper, spotted	Actitis macularia
040066		Scaup, lesser	Aythya affinis
040075		Scoter, black	Melanitta nigra americana
040205		Screech-owl, eastern	Megascops asio
040370		Siskin, pine	Carduelis pinus
040141		Snipe, common	Gallinago gallinago
040388		Sparrow, American tree	Spizella arborea
040389		Sparrow, chipping	Spizella passerina
040395		Sparrow, fox	Passerella iliaca
040342		Sparrow, house	Passer domesticus
040377		Sparrow, savannah	Passerculus sandwichensis
040398		Sparrow, song	Melospiza melodia
040397		Sparrow, swamp	Melospiza georgiana
040383		Sparrow, vesper	Pooecetes gramineus
040393		Sparrow, white-crowned	Zonotrichia leucophrys
040394		Sparrow, white-throated	Zonotrichia albicollis
040294		Starling, European	Sturnus vulgaris
040039		Stork, wood	Mycteria americana
040249		Swallow, barn	Hirundo rustica
040250		Swallow, cliff	Petrochelidon pyrrhonota pyrrhonota
040246		Swallow, tree	Tachycineta bicolor
040356		Tanager, summer	Piranga rubra
040056		Teal, green-winged	Anas crecca carolinensis
040260		Titmouse, tufted	Baeolophus bicolor
040102		Turkey, wild	Meleagris gallopavo silvestris
040299		Vireo, red-eyed	Vireo olivaceus
040301		Vireo, warbling	Vireo gilvus gilvus

040295		Vireo, white-eyed	Vireo griseus
040081		Vulture, black	Coragyps atratus
040080		Vulture, turkey	Cathartes aura
040316		Warbler, black-throated blue	Dendroica caerulescens
040325		Warbler, blackpoll	Dendroica striata
040323		Warbler, chestnut-sided	Dendroica pensylvanica
040338		Warbler, hooded	Wilsonia citrina
040311		Warbler, Nashville	Vermivora ruficapilla
040329		Warbler, palm	Dendroica palmarum
040326		Warbler, pine	Dendroica pinus
040317		Warbler, yellow-rumped	Dendroica coronata cornata
040322		Warbler, yellow-throated	Dendroica dominica
040331		Waterthrush, northern	Seiurus noveboracensis
040290		Waxwing, cedar	Bombycilla cedrorum
040050		Whistling-duck, fulvous	Dendrocygna bicolor
040059		Wigeon, American	Anas americana
040227		Woodpecker, downy	Picoides pubescens medianus
040226		Woodpecker, hairy	Picoides villosus
040222		Woodpecker, pileated	Dryocopus pileatus
040223		Woodpecker, red-bellied	Melanerpes carolinus
040224		Woodpecker, red-headed	Melanerpes erythrocephalus
040268		Wren, Carolina	Thryothorus ludovicianus
040265		Wren, house	Troglodytes aedon
040336		Yellowthroat, common	Geothlypis trichas
050028		Bat, big brown	Eptesicus fuscus fuscus
050029		Bat, eastern red	Lasiurus borealis borealis
050030		Bat, hoary	Lasiurus cinereus cinereus
050020		Bat, little brown	Myotis lucifugus lucifugus
050025		Bat, silver-haired	Lasionycteris noctivagans
050069		Beaver, American	Castor canadensis
050051		Bobcat	Lynx rufus rufus
050055		Chipmunk, Fisher's eastern	Tamias striatus fisheri
050103		Cottontail, eastern	Sylvilagus floridanus mallurus
050125		Coyote	Canis latrans
050108		Deer, white-tailed	Odocoileus virginianus
050050		Fox, common gray	Urocyon cinereoargenteus cinereoargenteus
050049		Fox, red	Vulpes vulpes fulva

050042			Mink, common	Mustela vison mink
050017			Mole, eastern	Scalopus aquaticus aquaticus
050071			Mouse, eastern harvest	Reithrodontomys humulis virginianus
050098			Mouse, house	Mus musculus musculus
050076			Mouse, Lewis' golden	Ochrotomys nuttalli nuttalli
050099			Mouse, meadow jumping	Zapus hudsonius americanus
050073			Mouse, northern white-footed	Peromyscus leucopus noveboracensis
050093			Muskrat, large-toothed	Ondatra zibethicus macrodon
050022			Myotis, northern	Myotis septentrionalis septentrionalis
050001			Opossum, Virginia	Didelphis virginiana virginiana
050027			Pipistrelle, eastern	Pipistrellus subflavus subflavus
050038			Raccoon	Procyon lotor lotor
050094			Rat, black	Rattus rattus rattus
050079			Rat, hispid cotton	Sigmodon hispidus virginianus
050078			Rat, marsh rice	Oryzomys palustris palustris
050095			Rat, Norway	Rattus norvegicus norvegicus
050013			Shrew, Kirtland's short-tailed	Blarina brevicauda kirtlandi
050015			Shrew, least	Cryptotis parva parva
050010			Shrew, pygmy	Sorex hoyi winnemana
050007			Shrew, southeastern	Sorex longirostris longirostris
050047			Skunk, striped	Mephitis mephitis nigra
050048			Skunk, striped	Mephitis mephitis mephitis
050058			Squirrel, northern gray	Sciurus carolinensis pennsylvanicus
050065			Squirrel, southern flying	Glaucomys volans volans
050059			Squirrel, talkative red	Tamiasciurus hudsonicus loquax
050087			vole, common Gapper's red-backed	Clethrionomys gapperi gapperi
050082			Vole, meadow	Microtus pennsylvanicus pennsylvanicus
050091			Vole, pine	Microtus pinetorum scalopsoides
050041			Weasel, long-tailed	Mustela frenata noveboracensis
050054			Woodchuck	Marmota monax monax
060012			Floater, eastern	Pyganodon cataracta
060025			Mussel, eastern elliptio	Elliptio complanata
070102			Crayfish, Appalachian brook	Cambarus bartonii bartonii
070095			Crayfish, devil	Cambarus diogenes diogenes

070093		Crayfish, no common name	Cambarus longulus
070094		<u>Crayfish, no common name</u>	Cambarus acuminatus
070098		Crayfish, spiny cheek	Orconectes limosus
100043		<u>Armyworm</u>	Pseudaletia unipuncta
100041		Borer, European corn	Ostrinia nubilatis
100262		Butterfly, American lady	Vanessa virginiensis
100245		<u>Butterfly, American snout</u>	Libytheana carinenta
100232		<u>Butterfly, banded hairstreak</u>	Satyrrium calanus
100092		<u>Butterfly, black swallowtail</u>	Papilio polyxenes asterius
100205		<u>Butterfly, cabbage white</u>	Pieris rapae
100278		Butterfly, Carolina satyr	Hermeuptychia sosybius
100094		Butterfly, clouded sulphur	Colias philodice
100265		Butterfly, common buckeye	Junonia coenia
100156		<u>Butterfly, common checkered-skipper</u>	Pyrgus communis
100157		Butterfly, common sootywing	Pholisora catullus
100277		<u>Butterfly, common wood-nymph</u>	Cercyonis pegala
100168		<u>Butterfly, crossline skipper</u>	Polites origenes
100147		<u>Butterfly, dreamy duskywing</u>	Erynnis icelus
100185		<u>Butterfly, Dun skipper</u>	Euphyes vestris
100258		<u>Butterfly, eastern comma</u>	Polygonia comma
100238		Butterfly, eastern tailed-blue	Everes comyntas
100093		Butterfly, eastern tiger swallowtail	Papilio glaucus
100195		Butterfly, Eufala skipper	Lerodea eufala
100209		Butterfly, falcate orangetip	Anthocharis midea
100162		<u>Butterfly, fiery skipper</u>	Hylephila phyleus
100276		Butterfly, gemmed satyr	Cyllopsis gemma
100228		<u>Butterfly, gray hairstreak</u>	Strymon melinus
100249		Butterfly, great spangled fritillary	Speyeria cybele
100270		<u>Butterfly, hackberry emperor</u>	Asterocampa celtis
100219		Butterfly, harvester	Feniseca tarquinius
100224		Butterfly, Henry's elfin	Callophrys henrici
100141		Butterfly, hoary edge	Achalarus lyciades
100149		Butterfly, Horace's duskywing	Erynnis horatius
100148		Butterfly, Juvenal's duskywing	Erynnis juvenalis
100160		Butterfly, least skipper	Ancyloxypha numitor
100163		Butterfly, Leonard's skipper	Hesperia leonardus
100175		<u>Butterfly, little glassywing</u>	Pompeius verna

100279		Butterfly, little wood-satyr	Megisto cymela
100217		Butterfly, little yellow	Eurema lisa
100079		Butterfly, monarch	Danaus plexippus
100173		Butterfly, northern broken dash	Wallengrenia egeremet
100143		Butterfly, northern cloudywing	Thorybes pylades
100281		Butterfly, northern crescent	Phyciodes selenis
100272		Butterfly, northern pearly-eye	Enodia anthedon
100211		Butterfly, orange sulphur	Colias eurytheme
100257		Butterfly, pearl crescent	Phyciodes tharos
100359		Butterfly, Peck's skipper	Polites peckius
100200		Butterfly, pipevine swallowtail	Battus philenor
100259		Butterfly, question mark	Polygonia interrogationis
100264		Butterfly, red admiral	Vanessa atalanta
100235		Butterfly, red-banded hairstreak	Calycopis cecrops
100268		Butterfly, red-spotted purple	Limenitis arthemis astyanax
100174		Butterfly, sachem	Atalopedes campestris
100082		Butterfly, silver-spotted skipper	Epargyreus clarus
100255		Butterfly, silvery checkerspot	Chlosyne nycteis
100146		Butterfly, sleepy duskywing	Erynnis brizo
100142		Butterfly, southern cloudywing	Thorybes bathyllus
100202		Butterfly, spicebush swallowtail	Papilio troilus
100239		Butterfly, spring azure	Celastrina ladon
100158		Butterfly, swarthy skipper	Nastra lherminier
100169		Butterfly, tawny-edged skipper	Polites themistocles
100247		Butterfly, variegated fritillary	Euptoieta claudia
100266		Butterfly, viceroy	Limenitis archippus
100180		Butterfly, Zabulon skipper	Poanes zabulon
100151		Butterfly, Zarucco duskywing	Erynnis zarucco
100204		Butterfly, zebra swallowtail	Eurytides marcellus
100042		Earworm, corn	Heliathis zea
100040		Moth, codling	Cydia pomonella
100047		Moth, gypsy	Lymantria dispar
100193		Roadside-skipper, common	Amblyscirtes vialis
110230		Tick, American dog	Dermacentor variabilis
110232		Tick, brown dog	Rhipicephalus sanguineus
110228		Tick, lone star	Amblyomma americanum
110231		Tick, rabbit	Haemaphysalis leporispalustris
110229		Tick, winter	Dermacentor albipictus

\* FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed;  
FC=Federal Candidate; FS=Federal Species of Concern; SC=State Candidate; CC=Collection Concern; SS=State  
Special Concern

\*\* I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High  
Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier  
IV - Moderate Conservation Need

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## Virginia Department of Game and Inland Fisheries

10/15/2009 7:25:34 PM

## Fish and Wildlife Information Service

VaFWIS Search Report Compiled on 10/15/2009, 7:25:34 PM

[Help](#)

Known or likely to occur within a 3 mile radius of 37,37,46.4

77,52,21.3

in 075 Goochland County, 145 Powhatan County, VA

430 Known or Likely Species ordered by Status Concern for Conservation  
(displaying first 27) (27 species with Status\* or Tier I\*\*)

BOVA Code	Status*	Tier**	Common Name	Scientific Name
050034	SE	I	Bat, Rafinesque's eastern big-eared	Corynorhinus rafinesquii macrotis
060006	SE	II	Floater, brook	Alasmodonta varicosa
040129	ST	I	Sandpiper, upland	Bartramia longicauda
040293	ST	I	Shrike, loggerhead	Lanius ludovicianus
040093	FSST	II	Eagle, bald	Haliaeetus leucocephalus
060173	FSST	II	Pigtoe, Atlantic	Fusconaia masoni
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans
060029	FSSS	III	Lance, yellow	Elliptio lanceolata
040029	SS	II	Heron, little blue	Egretta caerulea caerulea
040213	SS	II	Owl, northern saw-whet	Aegolius acadicus
040266	SS	II	Wren, winter	Troglodytes troglodytes
030063	CC	III	Turtle, spotted	Clemmys guttata
040094	SS	III	Harrier, northern	Circus cyaneus
040204	SS	III	Owl, barn	Tyto alba pratincola
040264	SS	IV	Creeper, brown	Certhia americana
040364	SS		Dickcissel	Spiza americana
040366	SS		Finch, purple	Carpodacus purpureus
040285	SS		Kinglet, golden-crowned	Regulus satrapa
040112	SS		Moorhen, common	Gallinula chloropus cachinnans
040262	SS		Nuthatch, red-breasted	Sitta canadensis
040189	SS		Tern, Caspian	Sterna caspia
040278	SS		Thrush, hermit	Catharus guttatus
040314	SS		Warbler, magnolia	Dendroica magnolia
050045	SS		Oner, northern river	Lontra canadensis lataxina
040225		I	Sapsucker, yellow-bellied	Sphyrapicus varius
040319		I	Warbler, black-throated green	Dendroica virens
060084		I	Pigtoe, Virginia	Lexingtonia subplana

To view All 430 species [View 430](#)

\* FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed;  
FC=Federal Candidate; FS=Federal Species of Concern; SC=State Candidate; CC=Collection Concern; SS=State  
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Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier  
IV - Moderate Conservation Need

Anadromous Fish Use Streams (2 records)

[View Map of All  
Anadromous Fish Use Streams](#)

Anadromous Fish Species			

Stream ID	Stream Name	Reach Status	Different Species	Highest TE *	Highest Tier **	View Map
C87	James River 3	Confirmed	1		IV	Yes
P189	James River 4	Potential	0			Yes

**Impediments to Fish Passage** ( 7 records )[View Map of All Fish Impediments](#)

ID	Name	River	View Map
476	CARNEAL POND DAM	TR-JAMES RIVER	Yes
735	MT. BERNARD DAM	COURTHOUSE CREEK	Yes
459	NO. 3 POND DAM	TR-JAMES RIVER	Yes
458	RECREATION POND DAM	TR-JAMES RIVER	Yes
470	TILMANS DAM	TR-FINE CREEK	Yes
457	VA INDUSTRIAL SCHOOL DAM	MOHAWK CREEK	Yes
468	WINALL%27S DAM	MOHAWK CREEK	Yes

**Threatened and Endangered Waters** ( 1 Reaches )[View Map of All Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE	BOVA Code, Status , Tier , Common & Scientific Name					
James River (02080205)	FSSE	060006	SE	II	Floater, brook	Alasmidonta varicosa	Yes
		060173	FSST	II	Pigtoe, Atlantic	Fusconaia masoni	

**Cold Water Stream Survey (Trout Streams)****Managed Trout Species**

N/A

**Virginia Breeding Bird Atlas Blocks**

N/A

**USFWS Breeding Bird Survey Routes**

N/A

**Christmas Bird Count Survey** ( 1 records )[View Map of All Query Results Christmas Bird Count Survey](#)

CBC ID	Survey Name	Christmas Bird Count Species			View Map
		Different Species	Highest TE *	Highest Tier **	
880029	Powhatan	54	ST	I	Yes

**Public Holdings:**

N/A

**Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:**

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
075	Gooseland	389	FSST	I
145	Powhatan	348	FSSE	I

**USGS 7.5' Quadrangles:**

Powhatan  
Goochland  
Fine Creek Mills  
Perkinsville

**USGS NRCS Watersheds in Virginia:**

H33 - JAMES RIVER/DEEP CREEK/MUDDY CREEK  
H38 - JAMES RIVER/BEAVERDAM CREEK/FINE CREEK

**USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:**

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
JM75	James River-Solomons Creek	54	FSSE	I
JM78	James River-Mohawk Creek	55	FSSE	I
JM79	Beaverdam Creek	58	FSSE	I
JM80	James River-Fine Creek	56	FSSE	I

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**APPENDIX D**  
**FLOODPLAIN MAP**



MAP SCALE 1" = 1000'



METE

NFIP

PANEL 0065B

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**POWHATAN COUNTY,**  
**VIRGINIA**  
**AND INCORPORATED AREAS**

**PANEL 65 OF 300**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY: POWHATAN COUNTY  
NUMBER: 510117  
PANEL: 0065  
SUFFIX: B

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for this subject community.



**MAP NUMBER**  
**51145C0065B**

**EFFECTIVE DATE**  
**FEBRUARY 6, 2008**

**Federal Emergency Management Agency**

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.nesc.fema.gov](http://www.nesc.fema.gov)

